

REMARKS

The Applicant appreciates the thoroughness with which the subject application has been examined. By this Amendment certain claims have been amended as set forth above to overcome the Examiner's rejections and more concisely claim and describe the present invention. Claims 19-24 were cancelled, without prejudice, in a previous amendment and new claim 25 was added. New claim 26 is added by this amendment. Claims 1-18, 25 and 26 remain in the application for reconsideration by the Examiner. The Examiner's allowance of all pending claims is earnestly solicited.

Claims 1-3, 6-12, 14-18 and 25 stand rejected under Section 103(a) as unpatentable over Thornley (3,655,429) in view of Ohgaki (6,038,095). Claims 4, 5 and 13 stand rejected under Section 103(a) as unpatentable over Thornley in view of Ohgaki as applied to claim 1 and further in view of Yong (6,628,465).

To further define the invention over the cited art, the Applicant has amended independent claim 1 as set forth above in the marked-up version of the claim. In particular, the second paragraph of claim 1 now claims: "... the plurality of heads are positioned to serially read the same magnetic regions." Support for this amendment can be found in the Applicant's paragraph [0018].

As discussed in the amendment of May 26, 2005, Thornley discloses combining signals based on repeated accesses of an indicia to form a single enhanced output signal. Thornley does not disclose signal averaging.

Ohgaki generally discloses averaging signals in the context of reproducing signals from a plurality of tracks of a recording medium. Ohgaki determines two tracking control signals from two separate tracking control tape tracks. Due to misalignment of one or more of the heads reading the tracks, the read values may not be within certain prescribed limits. In this condition, a tracking control value is determined by averaging signals derived from the head signals. See Ohgaki column 5, line 63 to column 6, line 45. As can also be seen from Figure 13(A), six heads WQ1, WQ2, WP1, WP2, WA1 and WA2 each read a respective track TQ2, TQ1, TP1, TP2, TA1 and TA2. Figure 16 illustrates the signal processing elements responsive to the head signals. As can be seen, a delay element is not present as one is not required for time aligning the signals since the signals are not read from the same tape track.

Since Ohgaki's averaging process applies to different signals it cannot be combined with the Thornley process of repeated access of indicia that generates signals representative of the same indicia. The lack of a delay element in Ohgaki further supports the inability to make the combination. The two references are related to different aspects of signal processing and different signal processing problems, i.e., the former related to multiple signals from the same indicia and the latter related to averaging out-of-range signals to overcome the out-of-range condition. For these reasons it is believed that one skilled in the art would not look to the Ohgaki reference in combination with the Thornley reference to disclose the use of averaging for signals derived from serial reading of the same tape track.

It is respectfully submitted that each of the dependent claims, 2-7 and 25, depending directly or indirectly from amended independent claim 1, includes one or more elements that further distinguish the invention over the art of record. These claims should therefore be in condition for allowance. Claim 7 has been amended as indicated.

Independent claim 8 has been amended to further emphasize that the signals representative of the magnetization are representative of the same magnetized region. The comments set forth above in rebuttal of the rejection of independent claim 1 also apply to the rejection of claim 8.

Dependent claims 9-13 depending from claim 8 are also believed to be allowable as each sets forth patentably distinct features of the present invention.

Independent claim 14 has been amended as indicated to further emphasize the time alignment of the signals. The comments set forth above in rebuttal of the rejection of independent claim 1 also apply to the rejection of claim 14 over Thornley in view of Ohgaki.

It is respectfully submitted that each of the dependent claims 15-18 depending from amended independent claim 14, includes one or more elements that further distinguish the invention over the art of record. These claims should therefore be in condition for allowance.

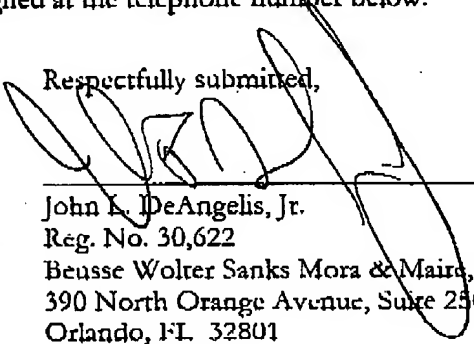
New claim 26 is patentably distinct from the cited references, neither of which refer to the SNR and how it is impacted by the signal and noise components of the plurality of signals representing the data bits of the same magnetized region.

The Applicant has attempted to comply with all of the points raised in the Office Action and it is believed that the claims in the application, i.e., claims 1-18 and 25 are in condition for allowance. In view of the claim amendments and remarks, it is requested that

the Examiner's rejection of these claims has been overcome. It is respectfully requested that the Examiner reconsider these rejections and issue a Notice of Allowance for all pending claims.

If a telephone conference will assist in clarifying or expediting this Amendment, the Examiner is invited to contact the undersigned at the telephone number below.

Respectfully submitted,



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